



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit 2154

Examiner Larry Donaghue

In Re: Stephen Melvin et al.
Case: P3813
Serial No.: 09/592,106
Filed: 06/12/2000
Subject: Method and Apparatus for Implementing Atomicity of Memory
Operations in Dynamic Multi-Streaming Processors

To: The Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RECEIVED

APR 16 2004

Technology Center 2100

Dear Sir:

Information Disclosure Statement under 37 C.F.R. §1.97

Enclosed herewith is an Information Disclosure Statement (IDS) by Applicant listing fifty-five (55) references. Under §1.98(d) no reference copies are required as they have been provided in priority application s/n 09/737,375. Applicant desires that the references be entered in the above-mentioned case as relevance dictates.

As this IDS is being filed with an RCE, in accordance with rule 1.97(b)(3), no additional fee is required. Please charge any deficiency or credit any overpayment to Deposit Account No. 50-0534.

Respectfully submitted,
Stephen Melvin et al.
by

Donald R. Boys
Reg. No. 35,074

Central Coast Patent Agency, Inc.
P.O. Box 187
Aromas, CA 95004
(831) 726-1457

BEST AVAILABLE COPY



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

5

Complete if Known

Application Number	09/592,106
Filing Date	06/12/2000
First Named Inventor	Stephen Melvin
Art Unit	2154
Examiner Name	Larry D. Donaghue
Attorney Docket Number	P3813

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 5600837 A *	02-04-1997	Artieri, Alain	
		US- 5461722 A *	10-24-1995	Goto, Tatuhiro	
		US- 5542088 A *	07-30-1996	Jennings, Jr. et al.	
		US- 5748468 A *	05-05-1998	Notenboom et al.	
		US- 5745778 A *	04-28-1998	Alfieri, Robert	
		US- 5867725 A *	02-02-1999	Fung et al.	
		US- 5309173 A *	05-03-1994	Izzi et al.	
		US- 5852726 A *	12-22-1998	Lin et al.	
		US- 5713038 A *	01-27-1998	Motomura, Masato	
		US- 5812811 A *	09-22-1998	Dubey et al.	
		US- 5860017 A *	01-12-1999	Sharangpani et al.	
		US- 5784613 A *	07-21-1998	Tamirsa	
		US- 5511210 A *	04-23-1996	Nishikawa et al.	
		US- 6119203 A *	09-12-2000	Snyder et al.	
		US- 5649144 A *	07-15-1997	Gostin et al.	
		US- 6061710 A *	05-09-2000	Eickemeyer et al.	
		US- 6076157 A *	06-13-2000	Borkenhagen et al.	
		US- 6029228 A *	02-22-2000	Cai et al.	
		US- 5561776 B1 *	10-01-1996	Popescu et al.	

RECEIVED

APR 16 2004

Technology Center 2100

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

Examiner
SignatureDate
Considered

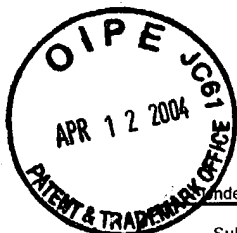
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

* References not provided under §1.98, filed in priority application 09/312,302

BEST AVAILABLE COPY



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	09/592,106
Filing Date	06/12/2000
First Named Inventor	Stephen Melvin
Art Unit	2154
Examiner Name	Larry D. Donaghue
Attorney Docket Number	P3813

Sheet 2 of 5

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US- 6535905 B1 *	03-18-2003	Kalafatis et al.	
		US- 4200927 A *	04-29-1998	Hughes et al.	
		US- 5933627 A *	08-03-1999	Parady, Bodo	
		US- 5758142 A *	05-26-1998	McFarling et al.	
		US- 6016542 A *	01-18-2000	Gottlieb et al.	
		US- 5361337 A *	11-01-1994	Okin, Kenneth	
		US- 6308261 B1 *	10-23-2001	Morris et al.	
		US- 5946711 A *	08-31-1999	Donnelly, Stephen	
		US- 5815733 A *	09-29-1998	Anderson et al.	
		US- 5987492 A *	11-16-1999	Yue, Kelvin	
		US- 6018759 A *	01-25-2000	Doing et al.	
		US- 6052708 A *	04-18-2000	Flynn et al.	
		US- 6212544 B1 *	04-03-2001	Borkenhagen et al.	
		US- 5546593 A *	08-13-1996	Kimura et al.	
		US- 5913049 A *	06-15-1999	Shiell et al.	
		US-			
		US-			
		US-			
		US-			

RECEIVED

APR 16 2004

Technology Center 2100

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				

Examiner
SignatureDate
Considered

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

* References not provided under §1.98, filed in priority application 09/312,302

BEST AVAILABLE COPY



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number 09/592,106

Filing Date 06/12/2000

First Named Inventor Stephen Melvin

Art Unit 2154

Examiner Name Larry D. Donaghue

Attorney Docket Number P3813

Sheet 3 of 5

RECEIVED

APR 16 2004

Technology Center 2100

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		* FISKE et al., "Thread Prioritization: A Thread Scheduling Mechanism for Multiple-Context Parallel Processors", 1995, pp 210 -221, IEEE	
		* YAMAMOTO, Wayne, "An Analysis of Multistreamed, Superscalar Processor Architectures", University of California Santa Barbara dissertation, December 1995, Santa Barbara, US	
		* STEERE et al., "A Feedback - Driven Proportion Allocator for Real-Rate Scheduling", Third Symposium on Operating Systems Design and Implementation, February 1999, pp 145-158, USENIX Association	
		* YAMAMOTO et al., "Increasing Superscalar Performance Through Multistreaming", 1995	
		* TULLSEN et al., "Simultaneous Multithreading: Maximizing on-Chip Parallelism", 22nd Annual International Symposium on Computer Architecture, June 1995, Santa Margherita Ligure, Italy	
		* YOAZ et al., "Speculation Techniques for Improving Load Related Instruction Scheduling", 1999, pp 42-53, IEEE	
		* KESSLER, R.E., "The Alpha 21264 Microprocessor: Out-of-Order Execution at 600 Mhz", August 1998	
		* YAMAMOTO ET AL., Performance Estimation of Multistreamed, Superscalar Processors, IEEE. 1994, pp 195-204, Hawaii, US	
		* NEMIROVSKY et al., "Quantitative Study of Data Caches on a Multistreamed Architecture", Workshop on Multithreaded Execution Architecture and Compilation, January 1998	
		* LI et al., "Design and Implementation of a Multiple-Instruction-Stream Multiple-Execution-Pipeline Architecture", 7th International Conference on Parallel and Distributed Computing and Systems, October 1995, Washington D.C.	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

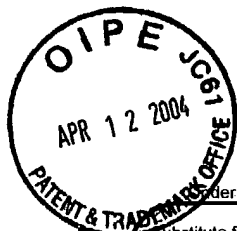
1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

* References not provided under §1.98, filed in priority application 09/312,302

BEST AVAILABLE COPY



PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number 09/592,106

Filing Date 06/12/2000

First Named Inventor Stephen Melvin

Art Unit 2154

Examiner Name Larry D. Donaghue

Attorney Docket Number P3813

Sheet 4 of 5

RECEIVED

APR 16 2004

Technology Center 200

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		* The PowerPC Architecture: A Specification for a New Family of RISC Processors, Second Edition, May 1994, pp 70-72, Morgan Kaufmann, San Francisco	
		* MC68020 32-Bit Microprocessor User's Manual, Third Edition, 1989, pp 3-125, 3-126, and 3-127, Prentice Hall, New Jersey	
		* POTEL, M.J., Real-Time Playback in Animation Systems, Proceedings of the 4th Annual Conference on Computer Graphics and Interactive Techniques, 1977, pp. 72-77, San Jose, CA	
		* ARM Architecture Reference Manual, 1996, pp. 3-41, 3-42, 3-43, 3-67, 3-68, Prentice Hall	
		* ESA/390 Principles of Operation, IBM Library Server, 1993, Table of Contents and Para. 7.5.31 and 7.5.70 (available at : http://publibz.boulder.ibm.com/cgi-bin/bookmgr_OS390/BOOK/DZ9AR001/CCONTENTS)	
		* MC88110 Second Generation RISC Microprocessor User's Manual, 1991, pp. 10-66, 10-67 and 10-71, Motorola, Inc.	
		* DIFENDORFF, KEITH et al., Organization of the Motorola 88110 Superscalar RISC Microprocessor, IEEE Micro, April 1992, pp.40-63, Vol. 12, No. 2	
		* KANE, GERRY, PA-RISC 2.0 Architecture, 1996, pp 7-106 and 7-107, Prentice Hall, New Jersey	
		* DIFENDORFF, KEITH et al., AltiVec Extension to PowerPC Accelerates Media Processing, March - April 2000, pp. 85-95, IEEE Micro, Vol. 20, No. 2	
		* NEMIROVSKY ET AL., DISC: Dynamic Instruction Stream Computer, ACM, 1991, pp 163-171	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

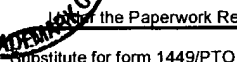
1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

* References not provided under §1.98, filed in priority application 09/312,302

BEST AVAILABLE COPY



(Use as many sheets as necessary)

5

of

5

P3813

Technology Center 2100

* References not provided under §1.98, filed in priority application 09/312,302

0-786-9199) and select option 2



Certificate of Express Mailing

"Express Mail" Mailing Label Number: EL988990620US

Date of Deposit: 04/12/2004

Ref: Case Docket No.: P3813

First Named Inventor: Stephen Melvin

Serial Number: 09/592,106

Filing Date: 06/12/2000

Title of Case: Method and Apparatus for Implementing Atomicity of Memory Operations in Dynamic Multi-Streaming Processors

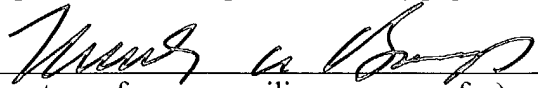
I hereby certify that the attached papers are being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

1. RCE transmittal.
2. Duplicate RCE transmittal.
3. Information Disclosure Statement cover letter.
4. Information Disclosure Statement by Applicant.
5. Check for fees in the amount of 770.00.
6. Certificate of express mailing.
7. Postcard listing contents.

RECEIVED
APR 16 2004
Technology Center 2100

Mark A. Boys

(Typed or printed name of person mailing paper or fee)


(Signature of person mailing papers or fee)

BEST AVAILABLE COPY